Amendments to the Specification

Please amend the following paragraphs in the Specification as follows:

[0006] Other *ad hoc* networks, *e.g.*, HomePlug, provide a multi-level priority mechanism so that only those devices asserting the highest active priority level actually contend during the contention interval. In these networks, a QoS manager must compete on an even footing with other devices at the same priority level for control of the channel. HomePlug is a registered trademark of the HomePlug Alliance, a California Corporation.

[0027] As Table 2 shows, the only applications that can run at CAP=3 are voice transport, *e.g.*, VoIP. The QoS ~~manger~~ manager of the invention also runs at this priority. A mechanism for contention access is also implemented using the CC flag described above for segment bursting. Contention free access allows a station to transmit several messages without having to contend for the channel in between message segments.

[0035] In HomePlug, there is no special interval. HomePlug relies upon the priority levels and would ~~expects~~ expect a QoS manager to contend at the highest level wherein the CAP =3. HomePlug does not explicitly provide for a QoS manager; the QoS manager is simply another application to the HomePlug protocol. Unfortunately, HomePlug also allows other devices to contend at this priority level, so the QoS Manager is not assured of gaining the channel. The solution disclosed herein overlays a higher priority, *i.e.*, a priority wherein CAP=7, referred to herein as an extended priority, in the HomePlug priority resolution mechanism. This higher

priority will preempt other devices, including legacy devices.

[0039] A device wishing to transmit at CAP = 2 will transmit a PRS during PRS0 and listen during PRS1. If it detects a PRS during PRS1 it will recognize that another device wishes to contend at a higher priority (CAP = 3) and it will defer until the next PRP is specified. A device wishing to contend at CAP=1 will have heard the PRS during PRS1, and will not have asserted during ~~PRS2~~ PRS1, having recognized that a higher priority message was waiting. If the device wishing to transmit at CAP=2 does not detect a PRS during PRS1, it will contend for the channel as described above.

[0048] Whenever the QoS manager asserts the extended PRS, it has already asserted conventional PRSs during the two priority resolution periods, and it is effectively asserting priority at CAP = 7. See Fig. 2. Legacy devices will react in the following manner: devices wanting to contend for the channel at CAP = 0, 1 or 2 will see the first two asserted PRSs and will realize that they cannot contend at their lower priority during the current contention window. The third PRS will come at the very beginning of the contention window, during slot 0, and will effectively preempt any legacy devices that are attempting to seize the channel at CAP 3. The legacy device's physical carrier sense will detect the transmission even though it is not expecting a third PRS. This will cause the device's virtual carrier sense to be set to extended interframe space (EIFS), the worst-case time delay for the next priority resolution period window. As with Option 2, there is a finite probability, <= 0.125, that the legacy device asserting at CAP = 3 will attempt

to begin its transmission in slot 0 of the contention window, but this will be detected by the QoS manager much sooner than it would be in Option 2. This ability of the QoS manager to detect a collision in the slot immediately following the extended PRS minimizes channel wastage caused by collisions. Normally, in HomePlug, a collision is inferred from the absence or of an ACK to the transmitted message, *i.e.*, the transmitting device does not detect the collision during the collision, as occurs in a CSMA/CD network. The transmitting device cannot detect the collision until it fails to receive an acknowledgement from the intended receiver acknowledging correct receipt of the message.

[0050] The method of the invention uses an additional PRS to gain control of the channel and force all other users to backoff. A specific embodiment of the method of the invention will now be described in Table 4. After one or more QoS managers have asserted a third PRS, they each utilize their own contention window, which is directly analogous to the standard contention window. Each will identify a slot within the contention window in which to begin transmission according to the following protocol:

Old Slot Number	"New" Slot Number	Event
0	PRS3	QoS Manager(s) assert an additional PRS. A legacy device asserting at CAP = 3 might also begin transmitting in old slot 0.

1	0	QoS Manager does not transmit. The QoS Manager "listens" for Physical Carrier Sense. If a legacy device began transmitting in old slot 0, the preamble to its message will continue through this slot and will be detected by the QoS Manager. The QoS Manager will infer that it did not gain control of the channel and will defer until the next PRP. This occurs only at the beginning of the QoS Manager's contention free period of control.
2	1	If a QoS Manager is active, *i.e.*, it is currently functioning as a QoS ~~Manger~~ Manager, it knows that it is the "controlling" QoS Manager and it will begin transmitting during slot 1 (old slot 2).
3 ...	2 ... 7	In the QoS Managers first attempt to become active as a QoS Manager, it randomly selects a value, n, between 2 and 7 inclusive. If it does not detect a transmission prior to its selected slot n, it will begin transmitting in that slot. Otherwise, it will back off until the next Priority Resolution window. If it detects a transmission beginning in Slot 1 thru Slot n-1, it will infer that there is another QoS Manager active and will defer to it.

Table 4